PKBCIVILS

Case Study

Service Yard Redevelopment
Birmingham

SOILDRI®
Sustainable Soil Technology

CLIENT OVERVIEW

PKB Civils has established itself as a leading civil engineering contractor, recognised for its expertise in delivering a wide array of complex projects across the recycling, manufacturing, logistics, industrial, and port sectors. Known for their efficient self-delivery model and integration of cutting-edge systems, PKB Civils consistently rises to the unique challenges presented by these diverse industries.

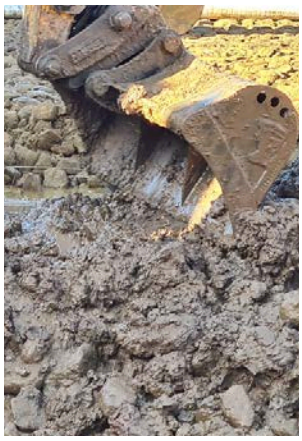
PROJECT DETAILS

- Client: PKB Civils
- Project: Service Yard Redevelopment

Project Overview:
PKB Civils utilised SoilDri's sustainable drying agents to manage saturated soil during a 4,000m² service yard redevelopment.

The solution enabled on-site reuse, avoided hazardous waste classification, reduced costs, minimised landfill reliance along with improving overall project efficiency and PKB's environmental impact.

PKB'S CHALLENGE



The project faced significant challenges due to adverse weather conditions, which rendered the on-site soil overly saturated and unsuitable for reuse as fill material. Disposing of the material off-site was not an ideal option due to logistical complexities and associated costs.

Traditional soil management methods, such as using quicklime, were ruled out because they would elevate the pH of the soil above 11.5, potentially classifying the waste material as hazardous. This would complicate the disposal process, increase costs, and introduce regulatory challenges.

PKB Civils needed an effective solution that could quickly manage the heavily saturated soil while maintaining environmental compliance and minimising disruptions to their project timeline.

THE SOILDRI SOLUTION:

PKB Civils sought SoilDri as a non-caustic, sustainable alternative to regular traditional quicklime. SoilDri's drying agents offered an efficient way to reduce soil moisture while maintaining pH levels below the hazardous thresholds, allowing the material to be reused on-site or classified for non-hazardous disposal if removed.

The SoilDri team acted quickly, delivering and applying the SoilDri product to two large stockpiles of saturated soil (600 tn).

The SoilDri treatment successfully reduced moisture content by 9%, enabling the soil to be repurposed as fill material, avoiding costly off-site disposal.

Original Moisture Content 28%

Moisture Content After SoilDri Applied at 2% 19%

RESULTS

Moisture Reduction: A **9%** reduction in the soils moisture content was successfully achieved, significantly improving conditions for enhanced workability, stability, and overall project efficiency.

Cost Savings: The use of SoilDri RC-26 resulted in substantial cost savings, enhancing the project's **overall financial efficiency.**

Embodied Carbon Savings: Using SoilDri instead of quicklime reduced embodied carbon emissions by **9.9 tonnes** of CO_2, aligning with sustainability goals.

Quick Delivery: SoilDri RC-26 was quickly delivered and applied, keeping the project on schedule.

pH Levels: We successfully maintained pH levels **below 11.5,** preventing the soil from being classified as hazardous waste and ensuring **compliance** with environmental regulations.

SUMMARY

PKB Civils undertook the redevelopment of a 4,000m² service yard, involving deep drainage installation, concrete works, and landscape reshaping.

Faced with saturated soil unsuitable for reuse, they turned to SoilDri's sustainable drying agents. SoilDri's non-caustic solution effectively reduced moisture content without raising pH levels to hazardous thresholds, allowing the soil to be safely reused on-site as fill material.

This approach minimised costly off-site disposal, reduced material movement through a busy operational yard, and supported environmental goals by lowering carbon and decreasing landfill reliance.

The quick, efficient solution also helped PKB Civils maintain project timelines and reduce overall costs.

TESTIMONIAL

"Working with SoilDri provided a game-changing solution for our project. Their quick response and effective product helped us treat the saturated material on-site, saving us time and money.

Traditional quicklime would have complicated disposal due to hazardous waste classification, but SoilDri's product allowed us to reuse the material safely and efficiently. This approach was not only cost-effective but also environmentally responsible, reducing our reliance on landfill and improving our carbon credentials."

Ben Duffy
Director, PKB Civils

Watch the case study video here

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